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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,895

10/20/2004

David Burnet Sugden

4412-12

6377

23117

7590

11/16/2006

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EXAMINER

SINGH, SUNIL

ART UNIT

PAPER NUMBER

3673

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/511,895

Applicant(s)

SUGDEN, DAVID BURNET

Examiner

Sunil Singh

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/20/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-7, 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wipo (WO 00/46486).

Wipo '486 discloses an oscillating disc cutter (10) including a cutting disc (12,602) and a drive mechanism (20), the drive mechanism including a drive shaft (18,19,612, see abstract, pages 2,4,10) to effect eccentric oscillation of the cutting disc and a radial bearing (15,23,609,610, see Figs. 1 and 7, disposed to permit relative rotation between the drive shaft and the cutting disc, the cutter further including a first axial bearing (606) disposed to react axial forces while accommodating induced rotation of the cutting disc when operatively engaged and to induce a rotational drag thereby limiting rotational speed of the cutting disc when free running; a second bearing (605) to induce a predetermined axial load in the first bearing.

With regards to claims 17-20, the drag is controlled by the pressurizing of members 605,606.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4,8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '486 in view of Cooper or Arvidsson (US 3332726, 5202937) or EP document (EP 0618377).

WO' 486 discloses the invention substantially as claimed. However, WO '486 lacks a first bearing being oil operated. Cooper, Arvidsson and EP '377 document all teach a first bearing being oil operated (27,34; 12,13; 13,14,21,22,49,50,45,46). It would have been considered obvious to one of ordinary skill in the art to modify WO '486 to make the first bearing oil operated as taught by either Cooper or Arvidsson or EP '377 document in order to allow the bearings to operate effectively at slow speeds as well as variable high speeds.

5. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '486.

WO' 486 discloses the invention substantially as claimed. However, WO '486 is silent about the rmp when free running. It would have been considered obvious to one of ordinary skill in the art to modify WO '486 to have the rmp as called for in claims 14-16 since such rmp can be controlled by the drive means. Such a modification is a mere design choice.

Art Unit: 3673

6. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '486 in view of Cooper or Arvidsson (US 3332726, 5202937) or EP document (EP 0618377).

WO' 486 discloses the invention substantially as claimed. However, WO '486 lacks a first bearing being oil operated. Cooper, Arvidsson and EP '377 document all teach a first bearing being oil operated (27,34; 12,13; 13,14,21,22,49,50,45,46). It would have been considered obvious to one of ordinary skill in the art to modify WO '486 to make the first bearing oil operated as taught by either Cooper or Arvidsson or EP '377 document in order to allow the bearings to operate effectively at slow speeds as well as variable high speeds.

With regards to claims 14-16, it would have been considered obvious to one of ordinary skill in the art to modify WO '486 to have the rpm as called for in claims 14-16 since such rpm can be controlled by the drive means. Such a modification is a mere design choice.

With regards to claims 17-20, the drag is controlled by the pressurizing of the bearing members.

### ***Response to Arguments***

7. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 3673

**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (571) 272-7051. The examiner can normally be reached on Monday through Friday 10:30 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Engle Patricia can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sunil Singh  
Primary Examiner  
Art Unit 3673



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10/1/06